

ABSTRACT

A direct data and power interface is provided to the patient support platform of a therapeutic bed that allows for a complete rotation of the patient support platform in either direction. In one embodiment, a data and/or power cable is housed within a chain-like cable carrier that is disposed within an annular channel attached to the patient support platform. In another embodiment, a flexible ribbon cable is disposed within the annular channel. The cable carrier or ribbon cable is long enough to allow a full 360 degrees of rotation of the patient support platform in either direction from 0 degrees supine flat while maintaining a direct data or power connection. To ensure that data and power connection is not articulated beyond its physical limit as a result of manually rotating the bed in the emergency backup mode, a mechanical stop is provided to limit rotation of the patient support platform to about 730 degrees. Sensors are provided to detect activation of the mechanical stop.